

ANNOTATION

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COINCIDENTAL SYPHILIS AND GONORRHOEA

The treatment of gonorrhoea with penicillin has created a problem as to whether, or to what extent, there is any danger of masking a coincidental syphilitic infection. The amount of penicillin administered to gonorrhoeal cases (100,000 units) has been shown by American workers to be sufficient to destroy surface spirochaetes and to lead to a partial or complete healing of a syphilitic chancre. In many patients after a brief interval the lesions relapsed, and both dark-field examinations and blood serological tests for syphilis, which had become temporarily negative, became positive once more.

What is important and has not yet been determined is whether or not 100,000 units of penicillin given for gonorrhoea will delay the appearance of clinical or laboratory signs of syphilis contracted at the same exposure. In order to furnish an answer to this and other questions, it is essential that sufficient statistical data be accumulated. Cases included in any such data must have had (1) a reliable history of absence of exposure from the time of the treatment of gonorrhoea till the appearance of the syphilitic lesion and (2) a primary exposure sufficiently remote

TABLE—CASES ADMITTED WITH SYPHILIS AFTER PENICILLIN TREATMENT FOR GONORRHOEA.

Case No.	Units of penicillin given	Site of lesion	Dark-field examination for <i>T. pallidum</i>	Kahn reaction	Time interval before appearance of lesion		Age of lesion when seen at clinic
					After penicillin treatment	After probable date of exposure	
1	60,000	Prepuce	Positive	Negative	42 days	49 days	4 days
2	100,000	Fraenum	Positive	Negative	36 "	47 "	5 "
3	100,000	Coronal sulcus	Positive	Doubtful	42 "	54 "	5 "
4	100,000	Prepuce	Positive	Negative	28 "	34 "	3 "
5	100,000	Coronal sulcus	Positive	Doubtful	40 "	44 "	5 "
6	100,000	Fraenum	Positive	Negative	38 "	43 "	2 "
7	100,000	Fraenum	Positive	Doubtful	45 "	49 "	5 "
8	100,000	Tongue	Positive	Positive	49 "	69 "	7 "
9	100,000	Coronal sulcus	Positive	Positive	31 "	38 "	2 "
10	100,000	Prepuce	Positive	Negative	38 "	45 "	3 "

in time from any previous exposure, so as to render it the probable source of the double infection. It is doubtful whether any one clinic can provide sufficient data of this type. In this paper are recorded a number of cases which satisfy these requirements.

Shafer and Zakon describe a case of gonorrhoea treated with penicillin; at that time, although there was a small papular lesion on the penis, the blood serological test for syphilis was negative. Two months later the man was seen with maculopapular syphilides and there were strongly positive blood Kahn and Wassermann reactions. (It is to be inferred that no intervening exposure had occurred.)

Lydon and Cowe describe 2 cases of gonorrhoea, each treated with 100,000 units of penicillin. The first had a primary chancre of the coronal sulcus, which became dark-field negative to *Treponema pallidum* and almost healed after the penicillin administration. In the second case, although both dark-field examination and blood serological test for syphilis were negative, the authors considered that the patient might have had an intra-urethral chancre, and in consequence they

recommended surveillance for two years. They raise certain questions as to the length of time during which the syphilitic infection may be masked and the possibility of its transmission during the latent stage.

Of 183 cases of fresh untreated syphilis which I have seen, 10 patients gave a history which appeared to show an original double infection with syphilis and gonorrhoea from a single exposure, with no intervening exposure since their treatment with penicillin. The relevant details are given in the Table. Nine of the 10 cases had received 100,000 units of penicillin for the gonorrhoeal infection; one case had received 60,000 units only. In all these cases a primary syphilitic lesion, in which *T. pallidum* was found, appeared within two months of the penicillin treatment.

The average time interval from penicillin treatment to the appearance of the ulcer in these cases was 38.9 days; from the probable date of exposure it was 47.2 days.

One patient (No. 8) admitted with a primary ulcer of the tongue and left-sided submandibular adenopathy, stated that at the time at which he received treatment for gonorrhoea he had had "a sore on the tongue in the same place and a lump in the neck", which had subsided after penicillin treatment only to recur a week before his admission. In view of the incubation period of the gonorrhoea, it is possible that his original lesion was the primary one with its satellite bubo, which had been aborted by penicillin.

It has been impossible to find in the literature any figures which would serve as a comparable control, but in 43 cases of primary syphilis, admitted over the same period, the average interval from the time of exposure to the appearance of the lesion was 39 days. I can only conclude that the amount of penicillin given may have delayed slightly the appearance of the lesions. The percentage of cases of primary syphilis in which there are positive serological tests for syphilis within one week of the appearance of the ulcer varies from 36 to 66 (Stokes). Among my cases, 5 out of 10 yielded a doubtfully or strongly positive Kahn test result. The administration of penicillin, therefore, does not appear to have caused any marked variation in the results of blood serological tests from that which would be expected.

Summary and conclusions

Ten cases of gonorrhoea treated with penicillin, in which syphilis subsequently developed from the same exposure, are described. In all the cases cutaneous lesions, which were positive on dark-field examination, developed within 2 months, and there was no apparent delay in the appearance of a positive serological reaction.

On the evidence submitted, it is suggested that surveillance of penicillin-treated cases of gonorrhoea to exclude syphilis does not require to be extended beyond the customary 3 months.

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REFERENCES

- Lydon, F. L., and Cowe, W. R. S. (1945) *Brit. med. J.*, **1**, 110.
Shafer, Bertha, and Zakon, S. J. (1944) *Arch. Derm. Syph.*, N.Y., **50**, 200.
Stokes, J. H. (1934) *Modern Clinical Syphilology*, 2nd edition, London, p. 597.

Bismuth as sole medication in syphilis

Gaté and Cuilleret of Lyons (in a paper abstracted in *Bruxelles-Médical* for 26th August 1945) advocate the use of bismuth alone in the treatment of early syphilis. They point out that drug resistance is a very rare occurrence in bismuth medication and that the contra-indications are few. They claim, in the 14 years during which they have used bismuth exclusively, to have obtained results comparable with those of methods in which it is an adjuvant. What are called "paradoxical cases" occur, but in general the results of bismuth therapy are stated to be speedy, regular and prolonged, particularly as regards the prevention of impotence; complications are fewer than with the use of arsenicals and these drugs are said to be unnecessary, even in temporary association with bismuth.—*La prophylaxie antivenérienne*, April 1945.